

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

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PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 26 JULY 2004 (26.07.2004)

Applicant's or agent's file reference
GP030040

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/KR2004/000694

International filing date (day/month/year)
26 MARCH 2004 (26.03.2004)

Priority date(day/month/year)
28 MARCH 2003 (28.03.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC7 A61F 2/06, A61F 2/24

Applicant

SCIENCITY CO., LTD. et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**


If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR

 Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon 302-701,
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

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Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 13-14

because:

☒ the said international application, or the said claims Nos. 13-14
relate to the following subject matter which does not require an international preliminary examination (*specify*):

Claims 13-14 relate to treatment methods for the aortic valvular regurgitation. These claims are considered to be methods for treatment of the human body by a surgery or a therapy and are the subject matter which the ISA is not required to search under PCT Article 17(2)(a)(i) and Rule 39.1(iv). Consequently, no opinion will be formulated with respect to novelty, an inventive step and industrial applicability of the subject matter of these claims.

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos. _____

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the
Administrative Instructions in that:

the written form ☐ has not been furnished

☐ does not comply with the standard.

the computer readable form ☐ has not been furnished

☐ does not comply with the standard.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with
the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details.

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

2. Citations and explanations :

1. Reference is made to the following documents;

D1 : WO 01/78625 A1

D2 : US 6,250,308 B1

D3 : US 5,674,280 A

2. The subject-matter of claims 1-12 relates to an apparatus for restoring aortic valve which is used for the correction of aortic valvular regurgitation caused by increase in the diameter of aortic annulus and/or sinotubular junction(STJ). More specifically, the apparatus for restoring aortic valve consists of an aortic annulus repairing apparatus in a band or a ring type that stabilizes uniformly the diameter of aortic annulus and an sinotubular junction repairing apparatus in ring type that stabilizes uniformly the diameter of sinotubular junction.

3. D1 discloses an endoventricular device for a treatment and correction of cardiomyopathies. The device comprises one or more elastic elements in the radial direction towards the inside of the ventricle and plastic deformation in a direction that is transversal to the said ventricle, the element being equipped which means for attaching it to the internal wall of the ventricle.

D2 discloses a mitral valve annuloplasty ring. The annuloplasty ring is flexible and can be readily adjusted to different sizes and shapes.

D3 describes an valvular annuloplasty ring of a biocompatible low elastic modulus titanium-niobium zirconium alloy.

(See Supplemental Box)

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of :

Box NO. V. 2. Citations and explanation;

4. Documents D1, D2 and D3, cited in the International Search Report, are defining the general state of the prior art which is not considered to be of particular relevance in respect of the present invention. None of these cited documents discloses an apparatus for restoring aortic valve according to the invention claimed in claims 1-12.

5. Consequently, the subject matter of claims 1-12 is considered to be novel(Article 33(2)). And it is not considered to be obvious to a person skilled in the art to apply the knowledge of these documents, taken individually or in combination, for creating an apparatus for restoring aortic valve according to the invention claimed in claims 1-12. Therefore, the present invention is considered to involve an inventive step(Article 33(3)).

6. All claims are considered to be industrially applicable.(Article 33(4))
